

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A circuit for a lamp, comprising:
a first sub-circuit for connecting to mains voltage of a predetermined frequency for rectifying the mains voltage and forming a rectified mains voltage having a first frequency;
a second sub-circuit connected to the first sub-circuit for providing an alternating current required for the lamp, the alternating current having a second frequency; and
a control circuit which is connected to the first sub-circuit and the second sub-circuit and which controls the second frequency of the alternating current subject to a varying component the first frequency of the mains voltage rectified by the first sub-circuit;
wherein the second frequency of the alternating current provided by the second sub-circuit is synchronized with the varying

component first frequency.

2. (Currently Amended) A circuit for a lamp, comprising:
a first sub-circuit for connecting to mains voltage of a predetermined frequency for rectifying the mains voltage and forming a rectified mains voltage having a first frequency;
a second sub-circuit connected to the first sub-circuit for providing an alternating current required for the lamp, the alternating current having a second frequency; and
a control circuit which is connected to the first sub-circuit and the second sub-circuit and which controls the second frequency of the alternating current subject to a varying component the first frequency of the mains voltage rectified by the first sub-circuit,
wherein the first sub-circuit comprises a filter with one or more coils and capacitors, a rectifier circuit, a switch and a buffer capacitor that is coupled to its output terminals.

3. (Previously Presented) The circuit of claim 1, wherein the second sub-circuit comprises a converter circuit for stabilizing direct current and a switching device for providing a square-wave

current of a desired level.

4. (Currently Amended) The circuit of claim 1, wherein the control circuit is connected on one side to a switch in the first sub-circuit and on the other side to one or more switches in a switching device, so that the phase and/or frequency of the lamp current controlled by the switching device is controlled subject to the varying component first frequency of the mains voltage or a multiple thereof.

Claim 5 (Canceled)

6. (Currently Amended) A circuit for a lamp, comprising:
a first sub-circuit for connecting to mains voltage of a predetermined frequency for rectifying the mains voltage and forming a rectified mains voltage having a first frequency;
a second sub-circuit connected to the first sub-circuit for providing an alternating current required for the lamp, the alternating current having a second frequency; and
a control circuit which is connected to the first sub-circuit

and the second sub-circuit and which controls the second frequency of the alternating current subject to a varying component the first frequency of the mains voltage rectified by the first sub-circuit, wherein the control circuit controls the a phase of the alternating current provided by the second sub-circuit such that this is the same as the a phase of the varying component first frequency of the rectified mains voltage supplied by the first sub-circuit.

7. (Previously Presented) The circuit of claim 1, wherein the second sub-circuit comprises an igniter for generating voltage pulses across the lamp so as to ignite the lamp.

8. (Previously Presented) The circuit of claim 1, wherein the rectified mains voltage is in the order of magnitude of 400 V and the voltage across the lamp is in the order of magnitude of 100 V to 150 V.

9. (Currently Amended) The circuit of claim 1, wherein the varying component a voltage signal of the rectified mains voltage

having the first frequency further has a peak-to-peak value in the order of magnitude of 10-100 V.

10. (Currently Amended) A method for operating a lamp, comprising the acts of:

forming a rectified mains voltage by rectifying a supplied mains voltage having a first frequency and bringing it a voltage level of the mains voltage to a desired voltage level;

generating from the rectified mains voltage a voltage signal having a second frequency; and

generating an alternating current having a third frequency to operate the lamp;

wherein the third frequency of the alternating current is controlled subject to a varying component of the rectified mains voltage, and wherein the frequency of the alternating current is synchronized with the varying component second frequency.

11. (Currently Amended) A method for operating a lamp, comprising the acts of:

forming a rectified mains voltage by rectifying a supplied

mains voltage and bringing it a voltage level of the mains voltage to a desired voltage level;

generating from the rectified mains voltage a signal having a first frequency; and

generating an alternating current having a second frequency, wherein the second frequency of the alternating current is controlled subject to a varying component of the rectified mains voltage the first frequency, and wherein the a phase of the alternating current is equal to the-a phase of the varying component of the rectified mains voltage signal.

12. (Previously Presented) The circuit of claim 3, wherein the desired level is +/-0.8 A for normal operation of the lamp.